

Intercomparisons on calibration of checkweigher instrument	Issue 1	
Approved by Håkan Källgren	Date 2022-01-02	Page 1 (4)

Content

ILC weighing instruments 2023:1	2
Participants in the intercomparison.....	2
Description of the weighing capacity and expected uncertainty in the intercomparison.....	2
Time schedule and detailed documented instructions.....	2
Calibration points.....	3
Statistical analyses that will be used.....	3
Reporting	4
Price for participation	4

Intercomparisons on calibration of checkweigher instrument	Issue 1	
Approved by Håkan Källgren	Date 2022-01-02	Page 2 (4)

ILC weighing instruments 2023:1

Swedish Metrology and Quality AB (SMQ) is organising this intercomparison on calibrations and subsequent verification of:

1. Calibration of a checkweigher (static and dynamic), capacity 5000 g
2. Subsequent verification / product verification of a checkweigher (XIII (1)) class)

Participants may choose to do the calibration and verification or one of them.

This concept of the intercomparison on calibration has been decided by an advisory group specially constituted for this calibration areas. No subcontractors are involved in the intercomparison.

Participants in the intercomparison

There are three categories of laboratories that may participate in this comparison:

- Accredited laboratories
- Laboratories applying for accreditation.
- Laboratories that want to evaluate their quality.

The result of the intercomparison will establish a base for the CMC values in calibrations and competence in verifications.

The number of participants is minimum 5 and maximum 18.

Description of the weighing capacity and expected uncertainty in the intercomparison.

A reference value will be established as a base for calculations in calibrations

Expected uncertainty values (CMC) are:

Capacity	Possible uncertainty values (U)
Static calibration	01 g
Dynamic calibration	0,3 g

No CMC values will be given for subsequent verification.

Time schedule and detailed documented instructions

The time schedule for calibration will be during the period 2023-02-20—03-03 (week 8 and 9).

A detailed time schedule and technical instructions together with the reporting protocol in form of an excel document will be sent to the participants who have registered to this ILC.

Each participant will have access to the instruments for maximum 4 hours and use its own references and method for calibration and reverification.

Intercomparisons on calibration of checkweigher instrument	Issue 1	
Approved by Håkan Källgren	Date 2022-01-02	Page 3 (4)

Preliminary data from the calibration shall be given to the organiser by using the excel forms established by the organiser. The final calibration certificate and verification report can have the form you are used to and shall be sent as pdf-file one week after finalizing the work.

Calibration site

Lagergatan 1, Helsingborg, Sweden.

The organiser will be present during the operations.

Calibration points

The participants shall calibrate according to their own method and use their reference equipment. Subsequent verification or product verification shall be based on the principles in OIML R51.

The calibration points will be:

Static calibration

5000 g instrument, g (static)
0
10
500
2000
5000
Eccentricity
1500

Dynamic calibration with 2 loads and at two speeds

5000 g instrument, g (dynamic)	Speed, m/min
500	20
500	35
4000	15
4000	25

The organiser will arrange for the packages that shall be used during the dynamic weighing. There shall be no adjustment made except zeroing

Statistical analyses that will be used

The organiser establishes an assigned reference value on the static calibration and a reference or consensus value on the dynamic calibration to be used in the calculation of En-numbers.

The En formula is described in ISO/IEC 17043:2010 annex B.

Intercomparisons on calibration of checkweigher instrument	Issue 1	
Approved by Håkan Källgren	Date 2022-01-02	Page 4 (4)

Reporting

The participants shall hand over a filled in excel protocol provided by the organiser to the organiser before leaving the site and shall send the calibration certificate to the organiser within one week after the calibrations are finished.

A draft report will be sent to the participants within 4 weeks from the time when the last participant has reported the results in a calibration certificate.

The participant shall comment on the draft report within two weeks after the reception of the draft report.

A participant not following the described reporting rules without giving reasons will be excluded from the report.

A participant may decide to leave the work before the draft report is distributed to the participants.

The participant may appeal to the full report if there are major faults in the report.

The inter-comparison report will be anonymously, and the participants will get an identification code related to the results in a separate e-mail.

Price for participation

Price for laboratories:

- Basic price 1 590 EUR per laboratory
- In addition, 260 EUR on calibration per participant
- In addition, 195 EUR on verification per participant

The basic price shall be paid at the registration when the minimum number of participants have registered.

If the laboratory decides not to fulfil their part of the agreement the basic price shall be paid.